

Consumer Perception of Tactile Packaging: *A Research Study on Preferences of Soft Touch and Hi Rise Coatings in Cosmetic Packaging*

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Agenda

- Current trends
 - State of the Industry
- Why this topic
- Research study
- What's next?



State of the Industry

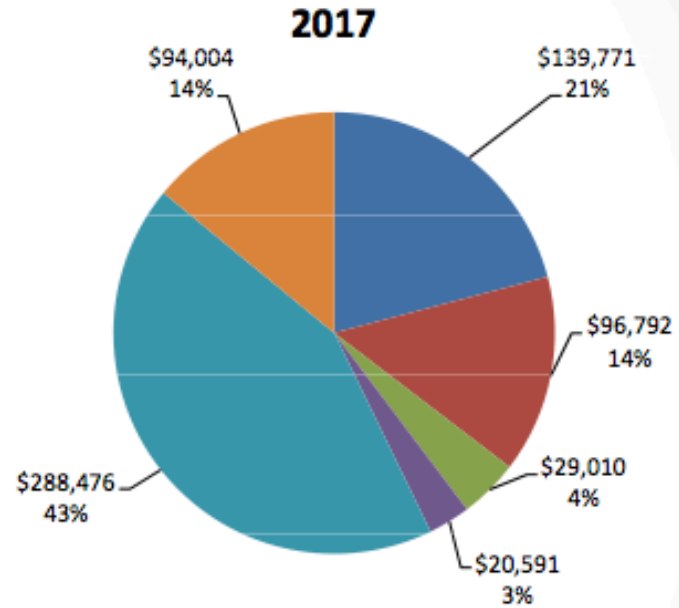
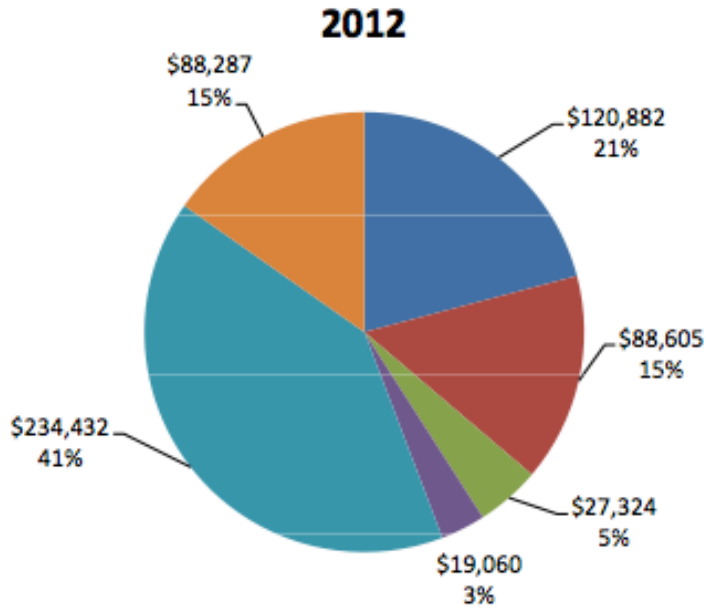
- Packaging ranks number 1 on the list of print's fastest growing business segments
 - US sales of package print slated to grow 7.8% over the next 5 years
 - 8.7B in 2012 – 12.7 B in 2017
 - By 2017, printed packaging will account for ~ 43% of print product sales globally
 - NPES, Worldwide market for Print, July 2014





Print Revenue by Product Category


2012-2017


(US\$ million)





 Publishing

 General Commercial & Promotional

 Business & Transactional

 Display Graphics & Point of Purchase

 Packaging

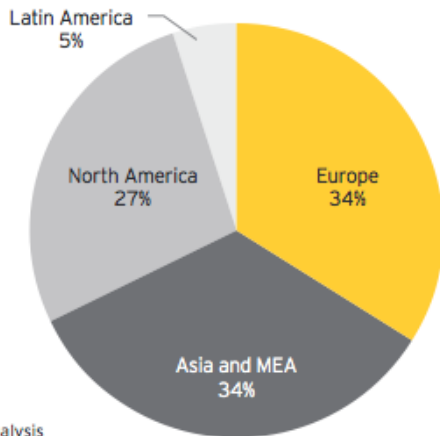
 Other Printing Revenues

Source: NPES study: "World-wide Market for Print: Identifying Global Opportunities for the Print Industry," by the EIU

Current Trends in Packaging

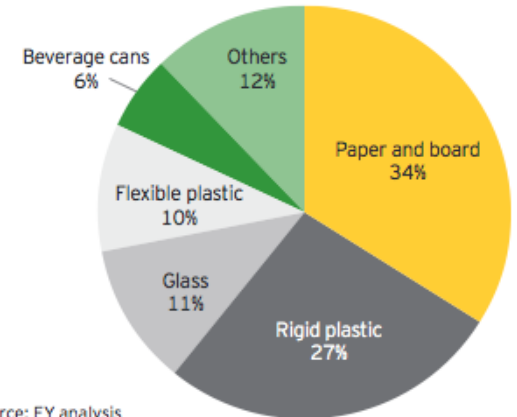
- Growth market globally - +4% annually (EY)

Chart 1: Global packaging, by geography – 2012
Total market size = US\$400b



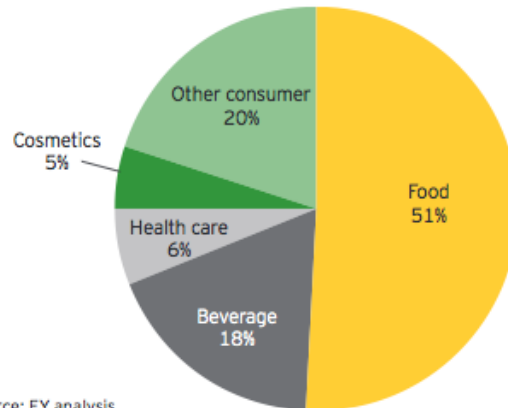
Source: EY analysis

Chart 3: Global packaging, by type – 2012
Total market size = US\$400b



Source: EY analysis

Chart 2: Global packaging, by end market – 2012
Total market size = US\$400b



Source: EY analysis

Current Trends in Packaging

- Graphics/Color/Sequencing
 - FMOT
- Materials/Structure
 - SMOT
- Interactivity
 - TMOT/ZMOT
- Tactile Packaging
 - FMOT/SMOT?



Why this topic?

- 75% of skincare product introductions between 2009 – 2013 in the US featured...tactile packaging
 - » Mintel's Global New Products Database
 - » David Luttenberger, Packaging Design
- Of the “Top 10” Luxury Packaging Cues, Tactile ranks 6th
 - » Dieline Article, March 2014
- Touching an object increases the feeling of perceived ownership
 - » Peck and Shu (2009)

Why this topic?

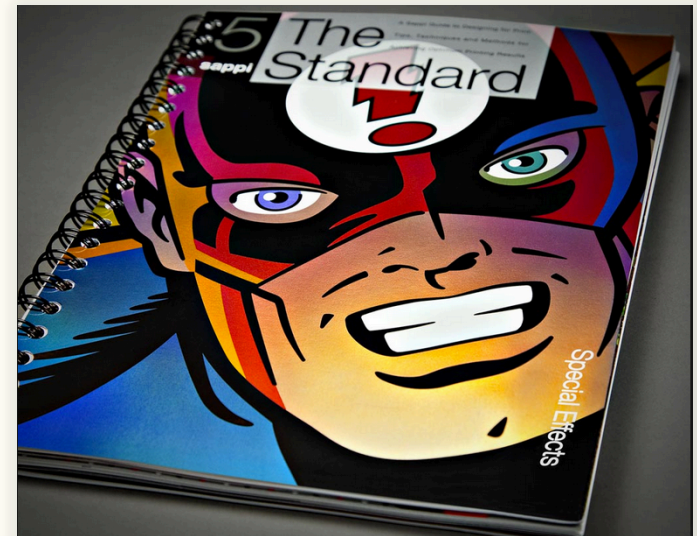
–It's all about sensory!!!!



"You can't turn off touch. It never goes away," [David Linden](#), a neurobiologist at Johns Hopkins

Historical Challenges

- Typically a “Post Press” activity (embossing)
 - Slow press speeds
 - Expensive (tooling)
 - Not all substrates can be embossed
- Many effects can be done
 - Thermography
 - Flocking
 - Foil Stamping
 - Lenticular.....



Why this Topic?

- Tactile Coatings
 - Hi Rise
 - Soft Touch
 - Texture without challenge or expense of embossing
 - Part of the printing process



Purpose of the study....

- The purpose of this study is to determine consumer preference of tactile coatings in packaging at the point of sale.

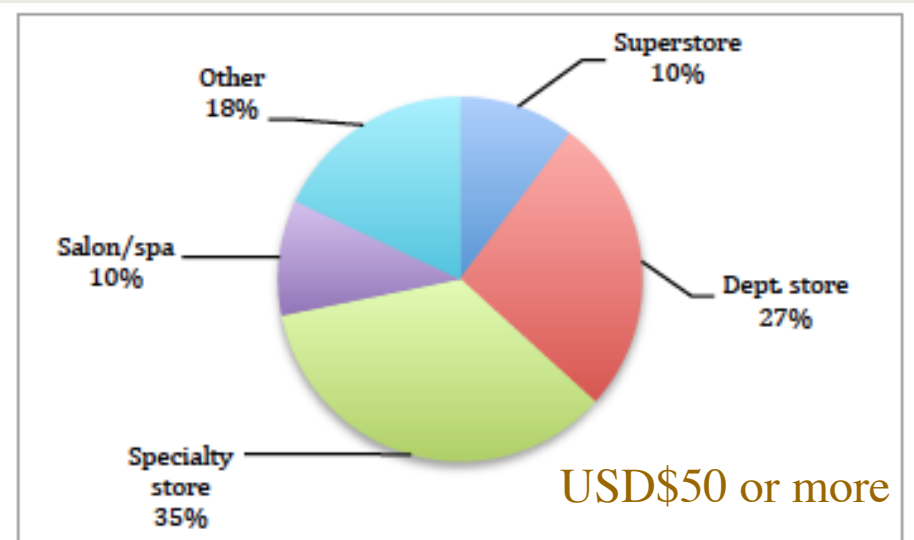
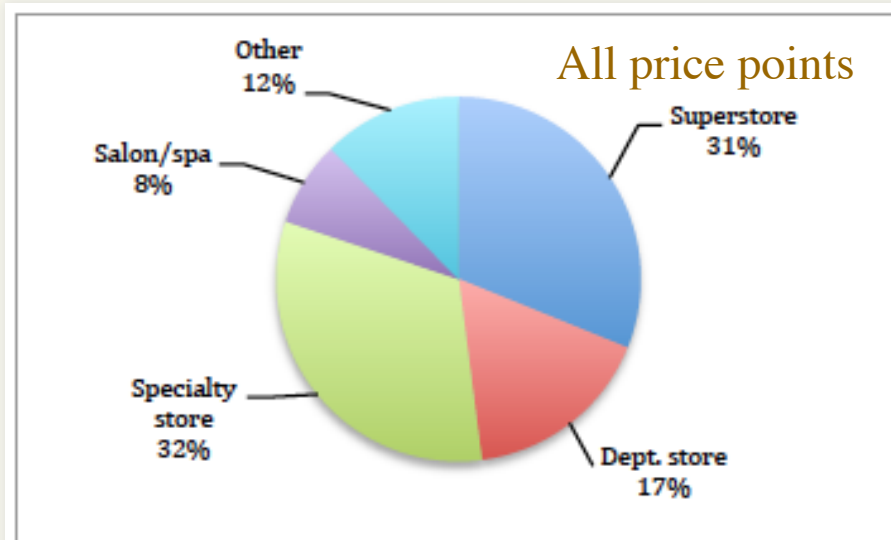


Research - Hypotheses

- **H1** - Consumers prefer Soft Touch tactile packaging over packaging with no tactile coatings.
- **H2** - Consumers prefer Hi Rise tactile packaging over packaging with no tactile coatings.
- **H3** - Consumers are willing to pay 5% price increases for packaging with Soft Touch tactile coatings over packaging with no tactile coatings.
- **H4** - Consumers are willing to pay 5% price increases for packaging with Hi Rise tactile coatings over packaging with no tactile coatings.
- **H5** - Consumers prefer black packaging for beauty and cosmetics packaging over white packaging.

Research - Methodology

- Choice-based conjoint study
- Sample size – 400 purchasers of beauty and cosmetic products
 - Convenience sample 18-64+ years
 - A confidence level of 95% with a margin of error of 5%
 - Subjects self-report purchased within the last 3 months
 - Primarily women



Research Methodology



Image source: sunset.com



JMP Statistical Analysis

- JMP 11.1 software
 - Conditional logistics regression, or conditional logit model (McFadden)
 - bias-corrected maximum likelihood estimator described by Firth
 - JMP is a business unit of SAS that produces interactive software for statistical analysis.

Kronecker product

- JMP's choice model is expressed as:
 - Let $X[k]$ represent a subject attribute design row, with intercept
 - Let $Z[j]$ represent a choice attribute design row, without intercept
 - The probability of a given choice for the k 'th subject to j 'th choice of m choices is:

$$P_i[jk] = \frac{\exp(\beta'(X[k] \otimes Z[j]))}{\sum_{l=1}^m \exp(\beta'(X[k] \otimes Z[l]))}$$

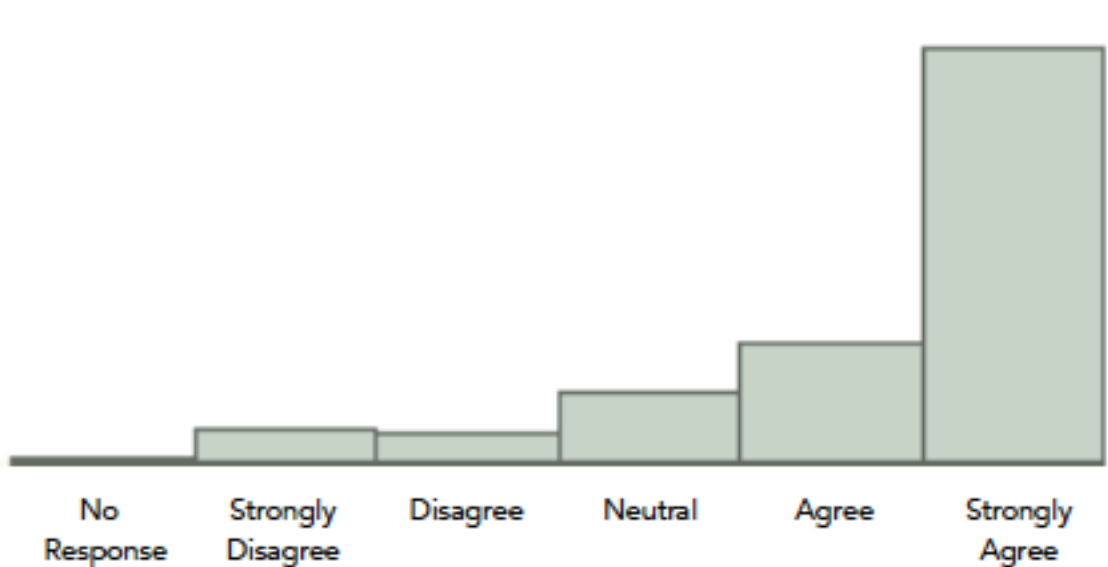
- *Where:*
 - \otimes is the Kronecker product
 - The numerator calculates for the j 'th alternative actually chosen
 - The denominator sums over the m choices presented to the subject for that trial (JMP® 11 Consumer Research, 2014)





Findings

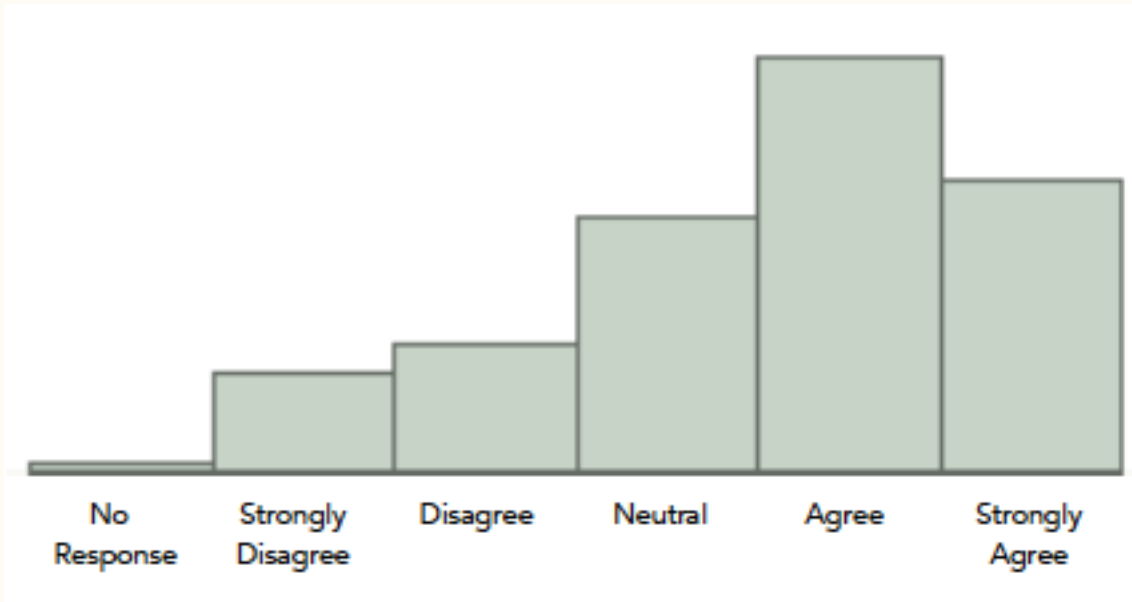
- When evaluating new beauty/cosmetic products at a retail store, salon or spa, I often pickup and handle the package before purchasing.



| Level | Prob |
|--------------|----------------|
| 0 | 0.00250 |
| 1 | 0.04500 |
| 2 | 0.04000 |
| 3 | 0.10250 |
| 4 | 0.17500 |
| 5 | 0.63500 |
| Total | 1.00000 |

Findings

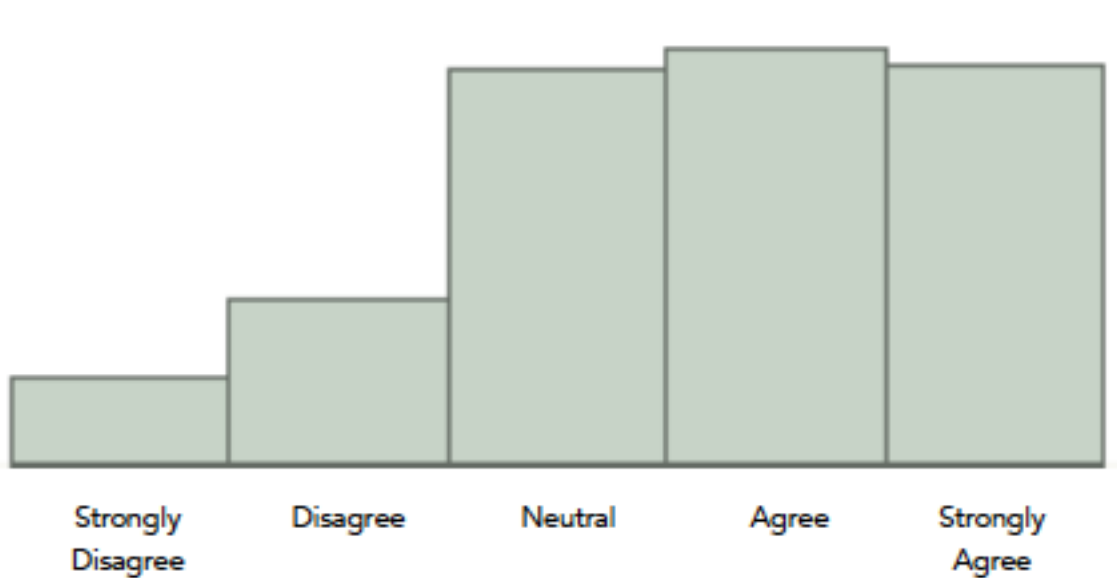
- When evaluating new beauty/cosmetic products at a retail store, salon or spa, the packaging influences my purchase (i.e. graphics, imagery, shape, color, texture)



| Level | Prob |
|-------|---------|
| 0 | 0.00500 |
| 1 | 0.08000 |
| 2 | 0.10500 |
| 3 | 0.21500 |
| 4 | 0.35000 |
| 5 | 0.24500 |
| Total | 1.00000 |

Findings

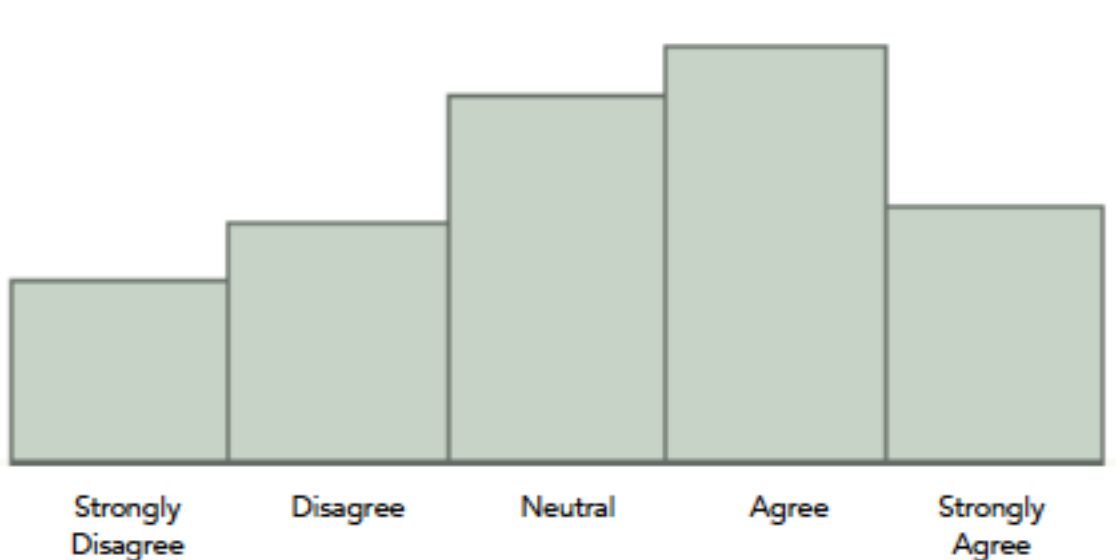
- High quality beauty/cosmetic products have fashionably decorative, expensive packaging.



| Level | Prob |
|-------|---------|
| 1 | 0.05750 |
| 2 | 0.11250 |
| 3 | 0.27000 |
| 4 | 0.28500 |
| 5 | 0.27500 |
| Total | 1.00000 |

Findings

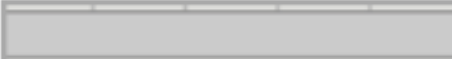


- When evaluating new beauty/cosmetic products, I often assume that fashionably decorative, expensive packaging is an indication of quality and expect to pay more for the product



| Level | Prob |
|-------|---------|
| 1 | 0.12250 |
| 2 | 0.16250 |
| 3 | 0.25250 |
| 4 | 0.28750 |
| 5 | 0.17500 |
| Total | 1.00000 |

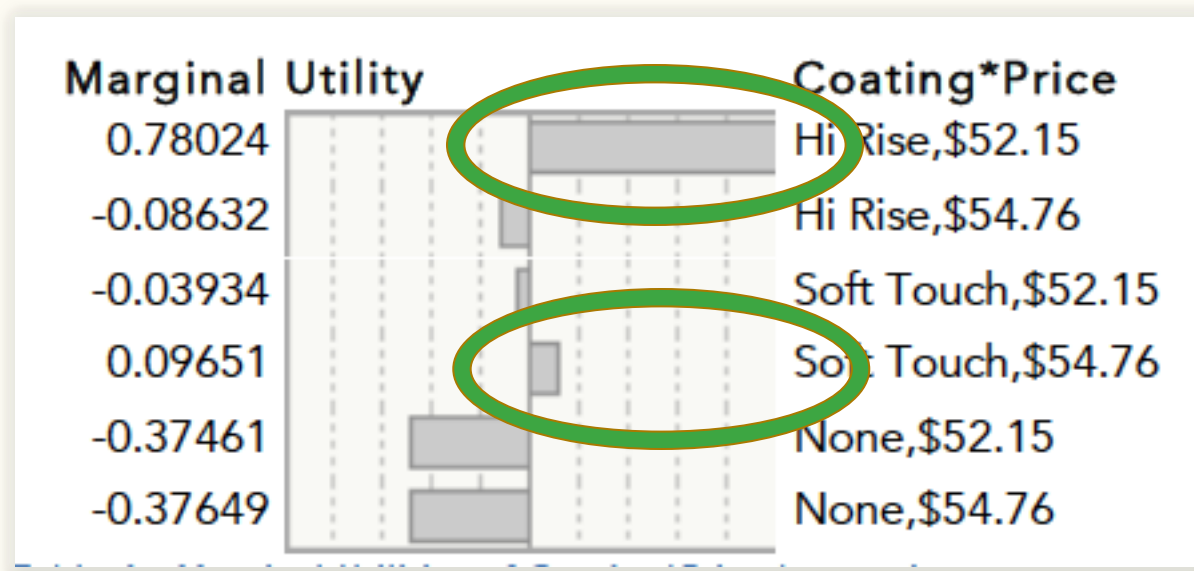
Findings - Tactile

| Attribute | Level 1 | Level 2 | Level 3 |
|-----------------|------------|-----------------------|---------|
| Design | Design A | Design B | -- |
| Tactile Coating | No Coating | Soft Touch | Hi Rise |
| Price | \$52.15 | \$54.76 (5% increase) | -- |

| Source | L-R ChiSquare | DF | Prob>ChiSq | |
|---------|---------------|----|------------|---|
| Coating | 139.430 | 2 | <.0001* |  |
| Design | 0.009 | 1 | 0.9236 |  |
| Price | 27.952 | 1 | <.0001* |  |

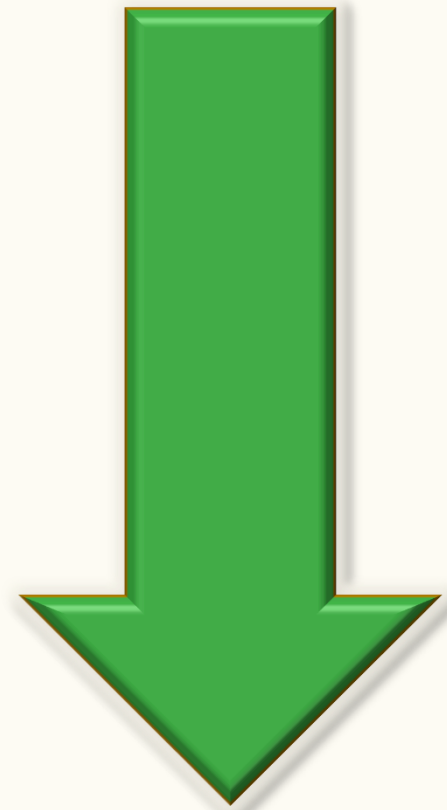
Findings - Tactile

- Interactions of the different attributes and levels







Findings

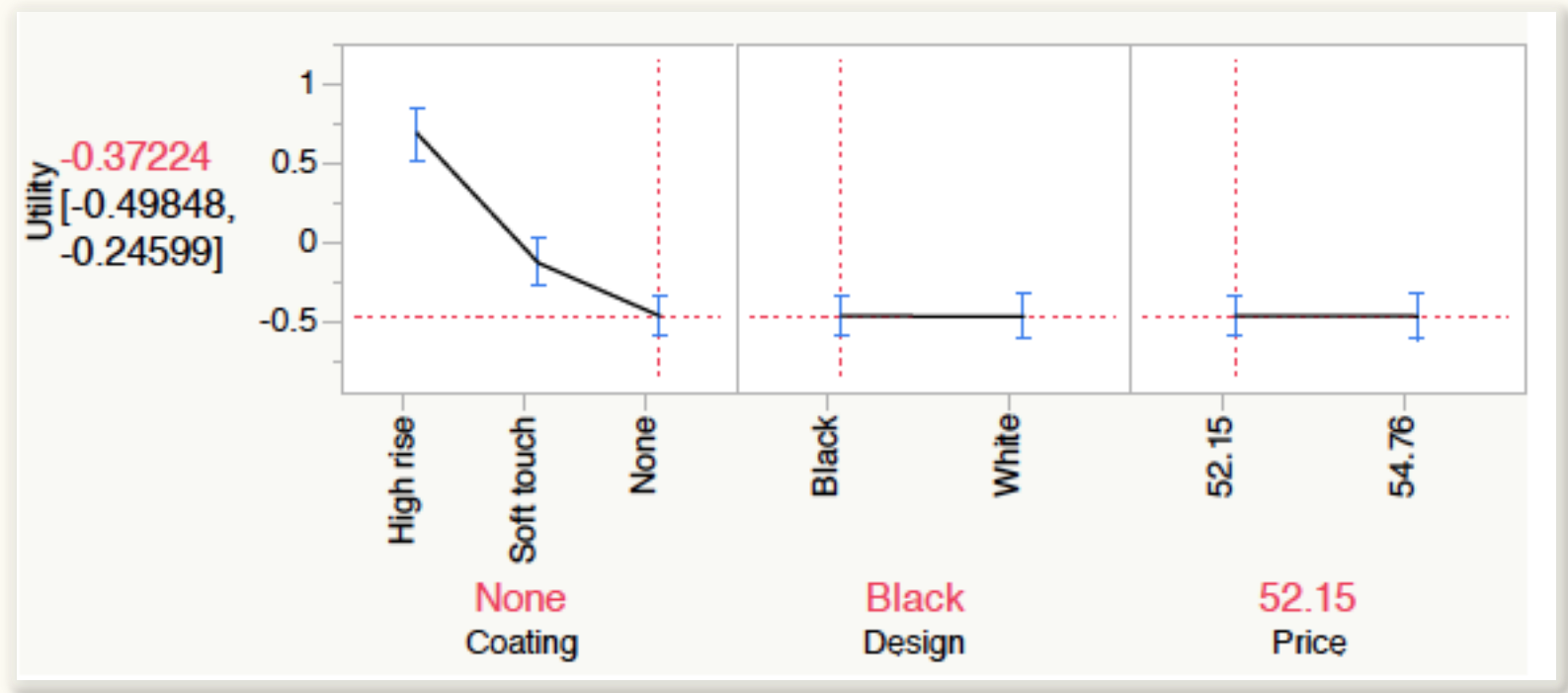
1. Hi Rise, \$52.15
2. Soft Touch \$54.76
3. Soft Touch \$52.15
4. Hi Rise \$54.76
5. No coating, \$52.15
6. No coating, \$54.76



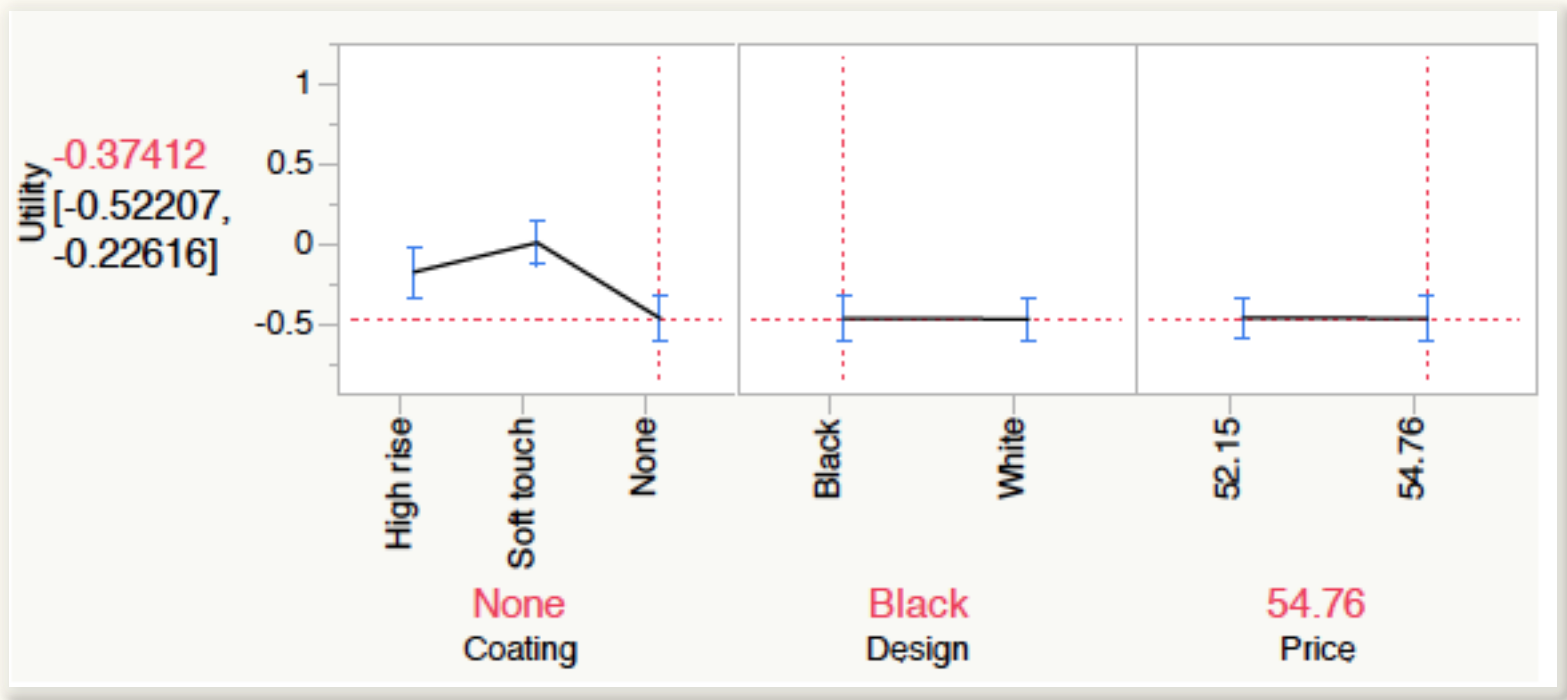
Findings

- **Hypothesis H1**, consumers prefer Soft Touch tactile packaging over packaging with no tactile coatings 
- **Hypothesis H2**, consumers prefer Hi Rise tactile packaging over packaging with no tactile coatings 
- **Hypothesis H3**, consumers are willing to pay 5% price increases for packaging with Soft Touch tactile coatings over packaging with no tactile coatings 
- **Hypothesis H4**, consumers are **not** willing to pay 5% price increases for packaging with Hi Rise tactile coatings over packaging with no tactile coatings 

Findings



Findings



Findings

- Evidence for CPG's in beauty and cosmetics
 - Integration of tactile coatings = increase in “FMOT”/”SMOT”
 - Tactile coatings can be part of the print process = less expensive, streamlined workflow
 - Various suppliers and technologies (UV, Water)
 - Logical conclusions for other brand strategies

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Journal of Applied Packaging Research
Rochester Institute of Technology

<http://scholarworks.rit.edu/japr/vol7/iss1/1/>

Thank You!



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